AMENDMENTS AND REMARKS

In the Drawings:

Figures 1a and 1b were objected to by the Examiner for failure to include a legend indicating that only prior art is illustrated. This legend has been added, and amended drawings are included with this communication in Appendices A1: Amended Drawings and A2: Amended Drawings with Markings to Show Changes Made. The Applicant respectfully requests that the amendments to the drawings be entered.

In the Claims:

Claims 1-2 were rejected by the Examiner under 35 USC §102(b) as being anticipated by Seabaugh (US 5,554,860). Upon review of Seabaugh, the Applicant believes the present invention to be patentably distinct from the prior art. In the present invention, the n-collector region is unique to each diode, whereas Seabaugh discloses diodes wherein the n-collector region is a common layer shared by each diode.

However, the Applicant acknowledges that the wording of Claim 1 particularly the phrase "in common", may not clearly point out the present invention. To that end, Claim 1 has been amended below, within the scope of the specification, in an attempt to distinctly point out the invention. The Applicant respectfully requests that the amendments to Claim 1 be entered:

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1. (Once amended) A plurality of laterally varying diodes each comprising an n-collector region formed on a diode region, wherein each individual diode region has an independently selectable depth including an ion-implanted portion, and each n-collector region has a depth extending from the diode region to a contact surface that is co-planar with the contact surfaces of the other n-collector regions, the plurality of laterally varying diodes further comprising means for substantially electrically isolating each individual diode.

Version with Markings to Show Changes Made:

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Deleted: including, in common,

Deleted: the

Deleted: ving a contact surface opposite the diode region and

Deleted: the contact surface to

Deleted: with each individual diode having an independently selectable portion of the depth including an ion-implanted portion,

Deleted: including

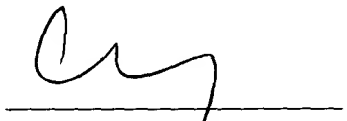
In regard to Claim 2, which depends from Claim 1, the Examiner noted that Seabaugh further discloses a diode region formed as a resonant tunneling diode region. The Applicant believes that the amendments to Claim 1 clarifies the invention and renders Claim 2 allowable.

CLOSING REMARKS:

Applicant respectfully submits, in light of the above amendments and remarks, that Claims 1 and 2 are now in allowable condition. Applicant thus respectfully requests timely allowance of the pending claims.

In the event the Examiner wishes to discuss any aspect of this response, or believes that a conversation with either the Applicant or Applicant's representative would be beneficial the Examiner is encouraged contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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